

Remarks/Arguments:

This is a reply to the office action of May 8, 2006.

We enclose a terminal disclaimer with respect to applicants' Patent 6642343 and application Ser. No. 10/382465 (now Patent 7067607). The disclaimer is intended to obviate the double-patenting rejection.

The claims have been amended to correct minor errors noted by the examiner. Claim 33 has also been reorganized to more clearly identify the elements of the mixture formed in step a).

In the office action, claims 21, 22, 24 - 27 and 32 - 35 were rejected under §102(e) as anticipated by Clemens (Patent 6,518,359).

This rejection is respectfully traversed, for reasons set out below.

The rejection is based on one portion of Clemens, i.e. table 29 and Examples 37 to 41 related thereto. Only in these examples, as far as we can see, might one argue that a reaction occurs, as described in the present application. This would not be correct, however.

First of all, the terpene-phenolic resin NIREZ 2019 is only mentioned in Clemens in examples 37 to 41 and in column 17, where NIREZ 2019 is described to be a terpene-phenolic resin. Clemens does not disclose that NIREZ 2019 would act as an isocyanate-reactive compound, i.e. that it would actually react with the isocyanate to form a polyurethane.

The present invention as claimed involves a specific polyurethane resin, one which is obtained by reacting a diisocyanate with several isocyanate reactive compounds. Claim 21 requires that a first group of one or more polyether polyols having a specific molecular weight react with the diisocyanate. Moreover, that claim requires that a second group of one or more polyhydroxylated resins – which are selected from a specific group – react with the diisocyanate. Optionally, a third group of low molecular weight polyols may react with the

diisocyanate. Finally, the reaction product of said diisocyanate with the isocyanate reactive groups is reacted with at least one amine and a reaction terminating agent.

In other words, the specific polyurethane resin of the present invention is obtained only if the isocyanate-reactive compounds of (a) and (b) of claim 21 are incorporated into the polymer chain of the resulting polyurethane. Only then will a polyurethane resin having the favorable characteristics described in the present specification be obtained.

In Clemens, the terpenephenoic resin NIREZ 2019 does not react with the prepolymer and consequently is not incorporated into the polymer chain. NIREZ 2019 (which is now sold under the trade name SYLVARES TP 2019) is known to be a tackifier. This is shown in the enclosed Product Data Sheet of the provider Arizona Chemical, as well as from two exemplary US patents: No. 6,432,547 (Kroll), column 8, lines 33 to 42; and No. 6,824,820 (Kinning), column 11, lines 46 to 48.

We submit that NIREZ 2019 is not a reaction partner of the isocyanate – as it would have to be according to the present invention – but rather it is used as an additive, i.e. as a tackifier. This position is also supported in the Clemens patent itself, at column 38, lines 24 to 26 where the use of a terpene-resin tackifier is described.

The present claims clearly require that the polyurethane resin be a reaction product of the components mentioned in the claims, i.e., a reaction must take place between those components. This does not occur in Clemens. As described above, NIREZ 2019 is known and used as an additive, i.e. a tackifier. In the list of isocyanate- reactive compounds mentioned in Clemens, NIREZ 2019 is not mentioned at all. This would clearly indicate to the skilled person that NIREZ 2019 does not form part of the prepolymer-forming reaction in examples 37 to 41.

Moreover, one can deduce that NIREZ 2019 does not react with the isocyanate by looking at the stoichiometry of the reaction in examples 37 to 41. We attach the declaration of Gilles Eisele, explaining in detail why Clemens' NIREZ 2019 would necessarily function as a non-

reacting additive, rather than as a reactant.

Because Clemens does not describe NIREZ 2019 as a reactant, and because it would not function as a reactant if used as directed by Clemens, we conclude that Clemens provides no explicit, implicit or inherent disclosure of the polyurethane resin recited in claims 21 and 33, and the claims which depend from them.

Accordingly, we believe the claims now presented are patentable over the prior art of record, and that this application is in proper form for allowance.

Respectfully submitted,

/Charles Fallow/

Charles W. Fallow
Reg. No. 28,946

Shoemaker and Mattare, Ltd.
10 Post Office Road
Silver Spring, MD 20910
(301) 589-8900

October 10, 2006

Product Data Sheet

Revision Date: 02/04

SYLVAREST™ TP 2019 Resin (Formerly NIREZ® 2019)

SYLVAREST™ TP 2019 Resin is a terpene phenolic resin. This thermoplastic resin has a high terpene level which exhibits excellent tackifying, flexibility, and compatibility properties for use in numerous polymers for adhesives.

PRODUCT PROPERTIES		
	Specifications	Typical Analysis
Softening Point ¹ (R & B), °C	120 -126	123
Color, Gardner ² , Neat	6 max.	4
FEATURES		BENEFITS
<ul style="list-style-type: none">• Polar Nature• Light Color/Color Stability• Broad Compatibility		<ul style="list-style-type: none">• Improved adhesion to non-polar surfaces, including polyolefins and metals• Offers lighter color for many applications and excellent color retention after exposure to elevated temperature• Expands formulary design
SUGGESTED APPLICATIONS:		<ul style="list-style-type: none">• Hot-melt adhesives• Co-tackifier pressure-sensitive adhesives
AVAILABLE FORMS/PACKAGING:		<ul style="list-style-type: none">• Flaked in multiwall bags (NET 50 lb)• Solid, in drums (NET 400 lb)• Molten in bulk tank trucks
SHIPPING POINT:		<ul style="list-style-type: none">• Pensacola, Florida
SAFETY INFORMATION:		<ul style="list-style-type: none">• Please refer to Material Safety Data Sheet # 6097



Technical Service: Savannah, GA (912) 238-6556
Sales Service: Jacksonville, FL - (800) 733-1374

The information and statements herein are believed to be reliable, but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE. Nothing herein is to be taken as permission, inducement or recommendation to practice any patented invention without a license.

Product Data Sheet

SYLVARES™ TP 2019 Resin (Formerly NIREZ® 2019 RESIN)

Methods of Analysis:

1. ASTM E 28-67
2. ASTM D 1544-86, 1963 Gardner Color Dish

FOOD AND DRUG ADMINISTRATION COVERAGE

SYLVARES™ TP 2019 Resin is approved for use under the following sections of Title 21 (Food and Drug) of the Code of Federal Regulations:

175.105	Adhesives
175.125	Pressure-Sensitive Adhesives



Technical Service: Savannah, GA (912) 238-6556
Sales Service: Jacksonville, FL - (800) 733-1374

The information and statements herein are believed to be reliable, but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE. Nothing herein is to be taken as permission, inducement or recommendation to practice any patented invention without a license.